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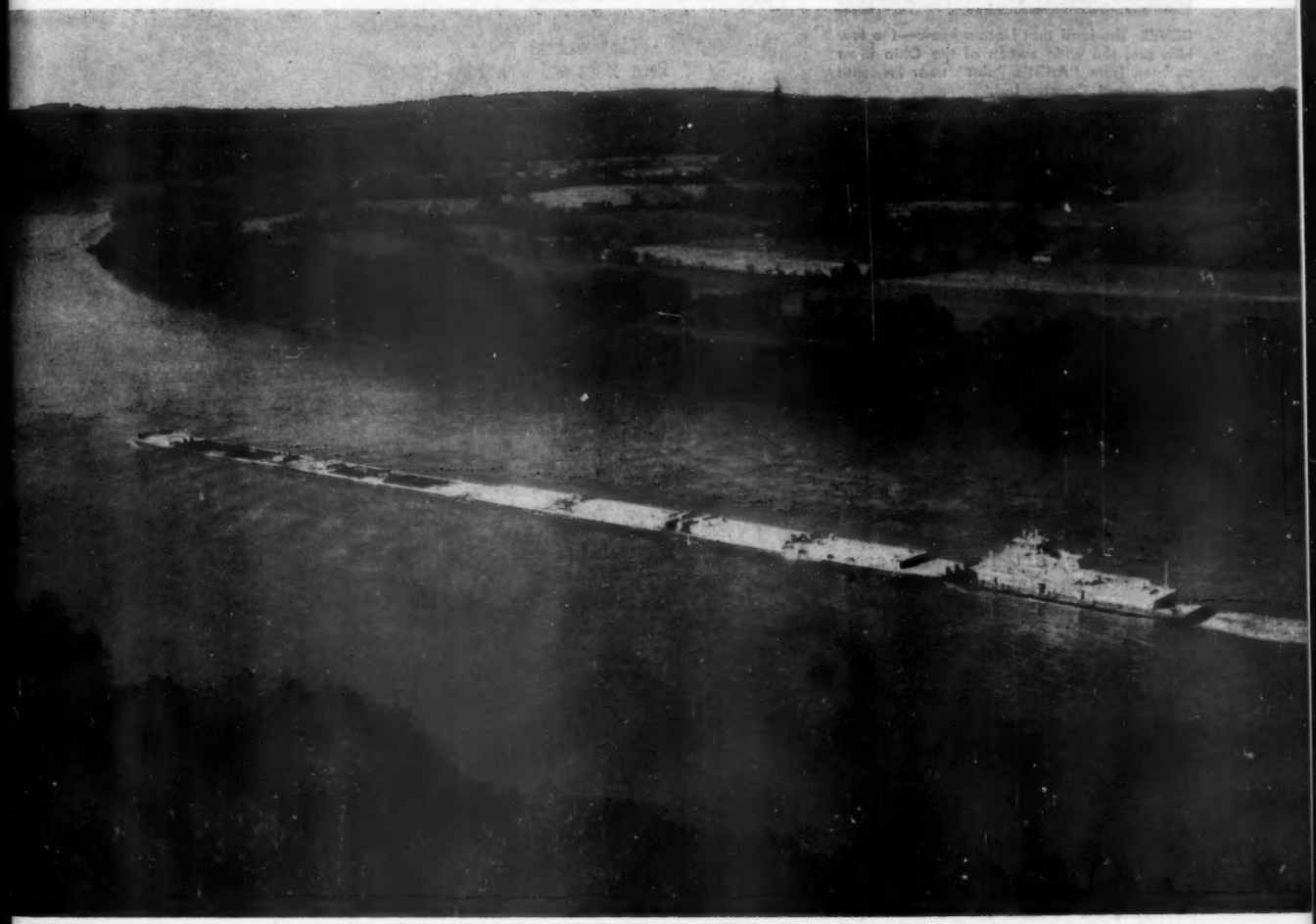
DEVOTED TO THE WISE USE OF LAND AND WATER RESOURCES



THE LINCOLN HILLS RC&D PROJECT

A report in depth on the Nation's first Resource Conservation and Development Project

SOIL CONSERVATION SERVICE

U. S. DEPARTMENT OF AGRICULTURE

December 1967 Vol. 33, No. 5

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DEVOTED TO THE WISE USE OF LAND AND WATER RESOURCES

COVER: The land that Lincoln knew—the low hills and the wide sweep of the Ohio River as seen from "Artist's Point" near Fredonia in Crawford County, Ind.

Renaissance . . .

What Secretary Freeman found when he visited the Lincoln Hills in Indiana on his "see and hear" tour last summer (*Soil Conservation*, Sept., p. 36) must have confirmed his conviction that rural renaissance through resource conservation and development is possible and practical.

Since that time he has urged such revitalization of rural areas as an answer to the problems of rural urban imbalance with increasing emphasis.

And what our information man, Joe Larson, learned while helping make advance arrangements for the Secretary's tour in the area convinced us that this is a story more people should know about.

The obvious rejuvenation of community spirit and economic life in the four-county area since the Secretary gave it the go-ahead as the Nation's first operating RC&D Project 4 years ago is an example of what is going on in the forty other RC&D areas.

We asked State Conservationist Tom Evans to let the local people, inside and outside SCS, tell about their own varied activities in this coordinated community development. Larson and Information Specialist Kent Alverson from Lincoln helped put this exceptional series of articles together.

The bylines in this issue are a cross-section, but not a complete roster, of the official and private groups contributing to the success of the Lincoln Hills Project.

99 The Lincoln Hills RC&D Project
By Howard W. Busch and Edgar F. Baum

101 Toward self-improvement
By W. Dean Jones and Mrs. Edna Eastridge

102 Lincoln Hills outdoor recreation facilities
By David Click and Willis Ridenour

103 Getting industry by really trying
By Raymond J. Schulthise and Sidney L. Liebert

104 ACP accelerates land treatment
By Carlton Miles and Mary Eisenmenger

105 Trees for Lincoln Hills
By Al G. Dauby and Mitchell G. Hassler

107 Job Corps conservation center gives living and learning experience
By A. Claude Ferguson

108 Soil and water conservation are basis for building rural economy
By Earl Blank and Donald E. Sloan

110 Wide range of water-control measures meets a primary need
By James J. Acres and Joseph W. Wilson

111 Loans for water, land improvement, and recreation
By Herman R. Behr

117 Meetings
American Association for Advancement of Science;
National Congress for Recreation and Parks

118 Review
The Federal Lands Since 1956, Recent Trends in Use and Management;
New publications

119 From the Administrator
Rural Renaissance in RC&D Projects

Field and other reports

112 Community cooperation, Illinois
113 Soil monolith tours, Michigan
114 Tile drains, South Carolina
115 Livestock management, New Mexico

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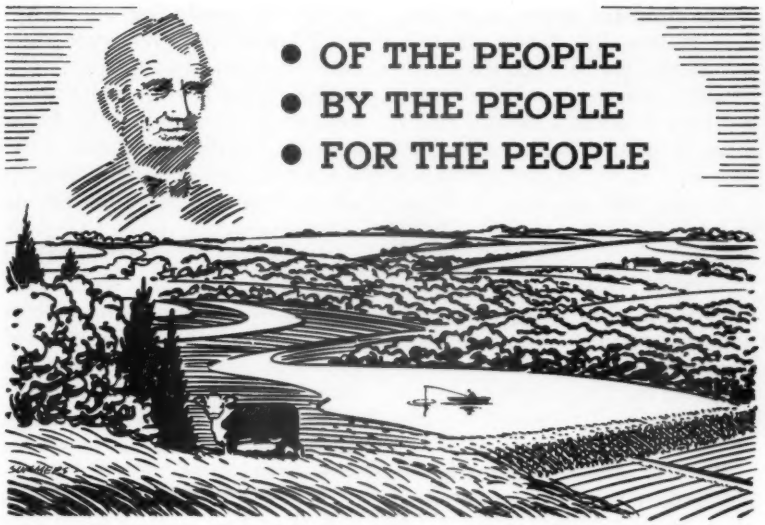


A catalyst for community action . . .

The Lincoln Hills RC&D Project

By Howard W. Busch and Edgar F. Braun
SCS assistant State conservationist in Indiana and first chairman of the Lincoln Hills RC&D Committee

"Here I grew up," Abraham Lincoln once said proudly of that section of southern Indiana, now known as Lincoln Hills, where he lived from 7 to 21 years of age. Here he worked the land, split rails, and shared the hard work every pioneer family knew.

Lincoln would indeed be proud today of the people who are developing this area of 1,005,440 acres bordering the Ohio River in Spencer, Perry, Crawford, and Harrison counties.

Determined to overcome rural economic problems, the leaders of Lincoln Hills look with confidence to the years ahead. Their optimism springs from the Lincoln Hills Resource Conservation and Development Project—from its success in harnessing local leadership efforts to upgrade the economy through conserving and developing soil, water, forest, and wildlife resources.

But, success in getting everyone to pull together did not come quickly or easily.

Cooperation on a multicounty basis began when Rural Area Development (RAD) committees from the four counties joined together to promote tourism and attract attention to the scenic and historic Lincoln Hills area.

Hours spent working together on public information leaflets, days spent manning a booth at the State fair, and weeks of joint planning for a Lincoln Hills scenic drive provided opportunities to share common problems and plan the improvement of their four-county area. A milestone was reached in 1963 when an act of the Indiana State Legislature officially recognized the four counties as the "Lincoln Hills."

The Food and Agriculture Act of 1962 offered Federal impetus to cooperative development. With help from the RAD committees, the four soil and water conservation districts that comprise the area acted promptly to sponsor an application for an RC&D Project.

In May of 1963, when Secretary of Agriculture Orville L. Freeman visited the area, he announced the acceptance of their application as "first in the Nation." After funds were appropriated, assistance provided, and a project plan developed, the Lincoln Hills RC&D Project became operational in October of 1964.

A 16-member Lincoln Hills RC&D Committee has equal representation from the conservation districts and the RAD committees of the four counties involved.

The RC&D Committee, in its overall capacity, makes full use of subcommittees to pursue individual projects and activities in resource development. The Livestock-Forage, Forestry, Fish and Wildlife, and Scenic Drive subcommit-

With his auger, SCS Soil Scientist John M. Robbins, Jr., unlocks soil secrets to answer questions on land use and treatment for agricultural and other developments.

tees are typical of those with special objectives in a particular area of interest.

Essential to the success of the Lincoln Hills RC&D Project is the active participation of many people with different backgrounds who represent the interests of the 61,000 people in the four-county community. The conservation district supervisors represent the farm background while several businessmen, two bankers, a county judge, clergymen, an artist, county commissioners, newspaper editors, sportsmen, and respected civic leaders represent other interests. The RC&D Project has become a catalyst to forge this wide cross section of backgrounds together for the overall improvement of the entire area.

The need for action is evident. Soil erosion has taken its toll; woodlands are of generally low quality; and water resources have not been developed. All too many acres of pasture have gone unimproved.

Recognizing the need for detailed soils information in the orderly development of the area, the project sponsors asked for and received SCS assistance to speed up soil surveys. To date more than 86 percent of the project's million-acre area has been mapped, and reports have been prepared for two of the counties.

The use of soils information is not limited to conservation planning. Special soils reports, with interpretative information, have been developed for the Spencer County industrial park and the Harrison County development areas. Information from the soil surveys is proving to be a valuable asset in the development of the Lincoln Hills.

In the past year, 328 farmers and other landowners became cooperators with their conservation districts, a 64 percent increase over the preproject rate. In tune with the acceleration of conservation work, these and other concerned people are producing new reforested lands, improved woodlands, better pastures, and new multiple-purpose water developments to add prosperity to the Lincoln Hills' scenic and historic qualities.

Leaders of the RC&D Project are finding that solid and lasting accomplishments take time, require the patient involvement of many people, and, at times, a firm position on an issue. At times there are objections to be overcome and money is short, but progress is being made.

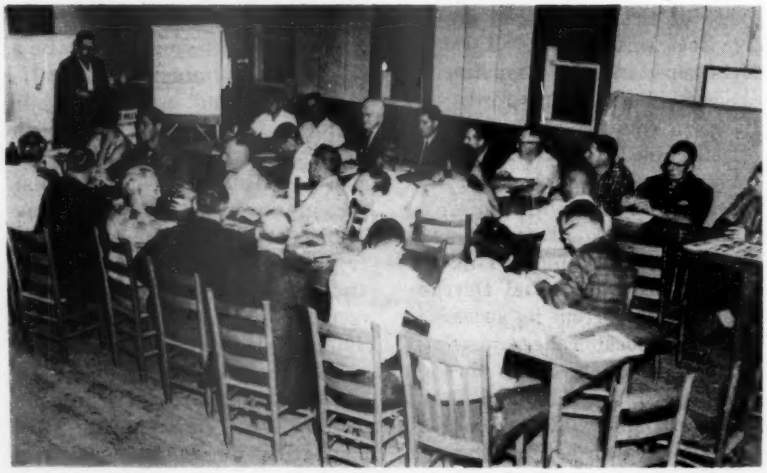
In Perry County a new high school has replaced an outmoded wooden structure.

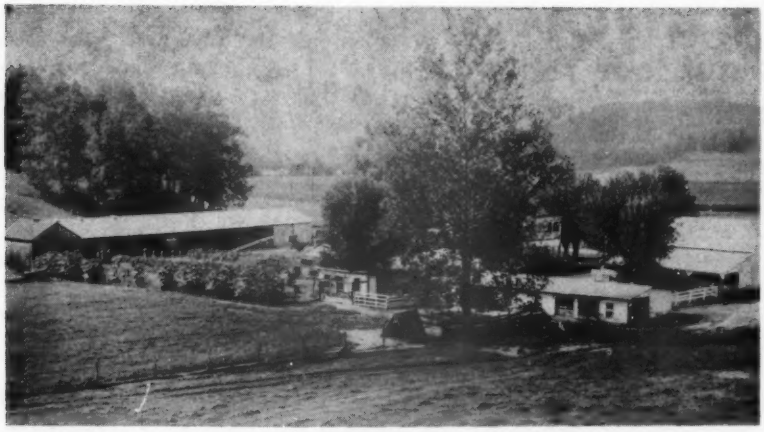
In Crawford County the creation of modern medical and dental clinical facilities, through public subscription, was possible only because of the downright hard work, perseverance, and sacrifice of many people.

The people of Crawford still haven't found but continue the search for help they need to explore the extent and quality of an industrial gypsum supply known to exist there.

Several agencies of Federal and State governments have given help to local leaders. SCS has Federal leadership in the project with help

The Lincoln Hills RC&D Committee reserves to members the privilege of disagreeing and debating vigorously during discussion periods but also stipulates that they must be in agreement before the meeting is adjourned.





Fine homes and well-kept farmsteads, like this one in the Middle Fork of Anderson watershed, are the harbinger of a new prosperity coming to Lincoln Hills through resource development.

from other USDA agencies. The Department of the Interior and the Office of Economic Opportunity also contribute.

On the State level, the Indiana Department of Natural Resources and the Cooperative Extension Service of Purdue University lend further confidence and support to Lincoln Hills. The State Government has just completed two modern bridges across the Ohio River at Cannelton and Mauckport that will connect with a planned highway to make Lincoln Hills easily accessible from all directions. The State also loaned $100,000 from an industrial revolving fund for an industrial park development in Spencer County.

The full economic impact of the Lincoln Hills RC&D Project will not be known for some time, but some results can be measured.

Recent studies indicate an annual increase of 11.4 percent in average weekly employment, 8.7 percent in average weekly wages, and 13.3 percent in total payroll earnings.

Nine banks and four farm equipment dealers reported that their businesses are at an all time high.

The numbers and value of livestock sold have increased.

Eight weekly newspapers published in the area claim circulation higher than ever before.

The number of visits to recreational sites is rising sharply.

Probably the most appropriate summary of progress was given by the Secretary of Agriculture when he revisited the area earlier this year:

"It is evident throughout these four counties that teamwork between the people and their local, State, Federal governments can accomplish great things. You are moving ahead on a multicounty approach. You are dealing with local resource problems on a unified basis rather than dealing with one resource, or one use, or one purpose. You are accomplishing this through the Lincoln Hills Resource Conservation and Development Project." ♦

Toward self-improvement

By W. Dean Jones and Mrs. Edna Eastridge
Director and assistant director, Community Action Agency, Tell City, Ind.

Among programs available from the Office of Economic Opportunity for families and individuals with low incomes in the Lincoln Hills, several are underway through the Community Action Agency.

Operation Mainstream has provided employment for 108 men, many of whom are more than 60 years of age. These elder citizens brushed and seeded 200 miles of roadside to reduce silt-producing erosion and make the area more attractive. Eighteen have better jobs as a result of this employment opportunity.

The Family Management Project, cosponsored by Purdue University, is designed to work with the economic and social problems of low income rural families. Counseling services and homemaking are offered, and 235 families have been helped. Much of the project's success is due to 12 local aides trained by two professionals to work in their own county.

The Neighborhood Youth Corps was created to help economically deprived youth, age 16 to 22, to stay in school by enabling them to work during their school years. The Corps also permits youths to return to school or go into advanced training to better qualify themselves for permanent jobs. The staff and nine part-time counselors have acquired work stations for 200 enrollees in nonprofit organizations.

In its second year, Headstart, an 8-week summer project for preschoolage children, has 18 youngsters enrolled. Under the guidance of trained teachers, volunteer parents, and other workers, it has attracted communitywide support. Conducted at Hoosier Heights School in Tell City, this activity also provides a nourishing noonday meal to those enrolled. ♦

What'll we do today? . . .

Lincoln Hills outdoor recreation facilities offer user many choices

By David Click and Willis Ridenour
Indiana State forester and work unit conservationist, SCS, Cannelton, Ind.

How about going on a picnic and a stroll through the woods? And don't forget the fishing rod—the fish might be biting if it's too chilly for a swim. But the campout, the cave tour, and the canoe trip will have to wait; we can't take it all in at once.

The recreation complex taking form in Lincoln Hills will soon be forcing recreation enthusiasts to make these decisions.

Greater impetus to recreation development stems from the Middle Fork of Anderson Watershed Project in the center of the four-county area. Saddle Lake is one of four multipurpose dams in the project and the first to be completed.

Monument to cooperation

At the dedication in July, Karl Gayer, chairman of Middle Fork Watershed Conservancy District, said, "This lake with its facilities is the first milestone and is a monument to the local people cooperating with the Soil Conservation Service and the Forest Service. We are also indebted to the Branchville Job Corps for their efforts in developing the recreation facilities."

Perry County Park and Recreation Board and the State of Indiana also plan a 327-acre recreational development in the main Anderson River watershed.

In the western part of Lincoln Hills, Santa Claus Land, Inc., a private multimillion dollar recreational development, when completed, will be one of the largest of its kind in the Midwest. A camping area will soon be supplemented by Christmas Lake Village and an 18-hole golf course.

On the eastern border, in the Big Indian Creek watershed, the Floyd County Park and Recreation Board, the State of Indiana, and SCS are working jointly on a wide range of recreational facilities featuring a 1,000-acre lake.

Also under consideration are a private 400-acre lake along Buck Creek and the Buffalo Trace County Park.

Eventually 25,000 acres, containing the Wyandotte Cave, the Little Wyandotte Cave, and the Harrison-Crawford Forest, will be developed in Crawford County. The complex, to be developed by the Indiana Department of Natural Resources, will embrace both banks of Blue River and offer canoeing on one of the few unspoiled rivers in eastern America.

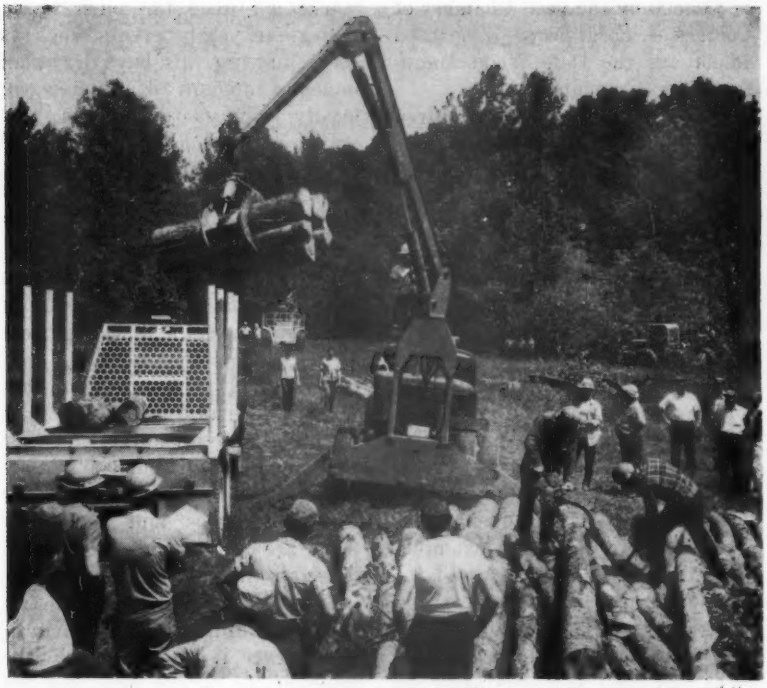
In the north, the Army Corps of Engineers plans to build an 8,600-acre Patoka Reservoir. In the south, a scenic parkway will give a long look at the beautiful Ohio River while the Cannelton Locks and Dam on the river when completed will round out the RC&D recreation complex with the Ohio Lake.

A hunter's paradise

On top of the wide variety of game found throughout the Lincoln Hills, the Mogan Ridge turkey management area of 5,700 acres under supervision of the Forest Service will help give sportsmen a hunting paradise.

In the center, in the west, east, north, and south, local people's efforts in cooperation with many private, State, and Federal agencies are providing a real economic uplift to the area as it beckons outdoor recreation enthusiasts from near and far. ♦

Many wildlife ponds have been built in the Lincoln Hills area with ACP cost-sharing and SCS technical assistance. And a fish is a fish to youngsters helping with a fishpond management demonstration.



Nearly 700 persons saw this demonstration of modern logging equipment (above). Demand still exceeds the supply of sorghum molasses (below) shown in production here by Russell McCallister. He plants 4 acres of cane and produces 90 to 100 gallons of molasses per acre.

Getting industry by really trying

By Raymond J. Schulthise and Sidney L. Liebert

Secretary, Lincoln Hills RC&D Committee, and Perry County Extension agent Cannelton, Ind.

So you are in a "distressed area." Many counties are.

In the Lincoln Hills, as in other unorganized rural communities, the past 50 years of centralization of industry have taken their toll of country stores, better jobs, risk capital — sometimes even the desire for community development. Over a period of years intense community pride spawned project after project only to have them die on the vine.

The Lincoln Hills RC&D Project has enabled this four-county area to shore up the weaknesses and the hazards of individual effort. The "let's do it together" spirit is putting the ingredients for success into a steadily growing list of adapted local industries.

Numerous project activities cover nearly every facet of development of land, water, trees, recreation, tourist trade, roads, and rural water systems.

One of the most cooperative efforts for local industry has been the Storrs Wood Products Company, Inc., at Evanston, a flakeboard plant costing $4 million.

In this case, one of the Lincoln Hills development corporations was able to put up 10 percent of the cost and the Economic Development Administration 65 percent. The remaining 25 percent was provided by the Southern Indiana Rural Electric Cooperative, five banks, and two savings and loans associations.

Just getting into operation, the plant employs 70 persons and uses 70 tons daily of pulpwood supplied by area landowners. Besides using inferior wood available in large quantities, it gives employment to another 300 persons working in the woods.

The Eddystone Manufacturing Corporation in English came as a result of the loss of another major industry. The Small Business Administration was consulted, and it was agreed they would assist if a suitable industry could be found to use the vacant plant.

Local business people went to work. They found the right industry. It manufactures wooden desks, and employs 65 persons at the plant. An expansion is now underway.

To provide the right setting and services for industry, a 3,000-acre industrial park has now been established near Grandview in Spencer County. The Soil Conservation Service checked on natural hazards and opportunities through its soil survey. Zoned to remain industrial, this level tract already has two small industries. Special advantages to prospects are its access to the Ohio River, a railroad, natural gas, unlimited fresh water and power.

Nurseryman, Inc., a half million dollar plant manufacturing potting soil, was aided by fund raising of $12,800 by the local Chamber of Commerce. Local people also raised $8,000 for the Dale Wood Manufacturing Company.

Other new industries acquired by cost-sharing processes include Sharer, Inc., a metal fabricating plant; Grandview Aluminum Products, an aluminum coating plant; and Schwaub Safe, a manufacturer of steel safes.

Besides the new companies, there have been extensive additions to several established woodworking, ceramic, and manufacturing industries.

Diversity is the key to keeping prosperity in the Lincoln Hills, and imaginations are always at work for new angles. Discovery of glass sand deposits, for example, has led to the development of industry supplying raw material for the glass and cosmetic industries.

A significant local accomplishment has been the organizing of arts and crafts associations in the four counties. This group has done much to provide an outlet for small marketable items for tourism.

Regular yearly events, such as shows and festivals, have drawn an immense amount of interest in locally manufactured arts and crafts items such as pictures and other native products.

This is an important industry and means added income to local artists, handicapped individuals, and retired persons. Weekly classes to help people improve their skills are conducted by staff members from St. Meinrad Abbey.

The effort to acquire industry continues because, just as there is no single cause for poverty, neither is there any single cure. We know the area is poor because there are not enough jobs, and the reason there are not enough jobs is because the area is poor.

Statistics can never indicate the total story of a dynamic community. However, it can be shown by the pride of its people who feel the never ending task of working for increased jobs is worth the effort in the Lincoln Hills. ♦

ACP accelerates land treatment

By Carlton Miles and Mary Eisenmenger
Work unit conservationist, SCS, and office manager, ASCS, Harrison County, Corydon, Ind.

Special funds through the Agricultural Conservation Program, administered by the Agricultural Stabilization and Conservation Service, are accelerating land treatment in the Lincoln Hills Resource Conservation and Development Project in Indiana. Some $203,979, in addition to the regular ACP funds allotted each year, has been allocated by the Indiana State ASCS Committee to the four counties during the 3 years that the conservation and development project has been in operation.

These special ACP project funds are allocated to a specified area or for a particular conservation practice to correct a specific problem. With ACP assistance, trees have been planted on strip-mine spoil banks and gullied land to retard erosion; timber stand improvement work has been done to upgrade the quality of forests; woodlands have been fenced to protect them from livestock; pasture seedings have been made to convert cropland to grassland or to improve the cover in existing pastures; and ponds have been constructed for livestock water. Diversions, grassed waterways, drop spillways, and other

erosion-control practices have also been built or applied.

An example of the work being done through a special ACP program in the Lincoln Hills area is the progress being made in three small valleys or watersheds. Boiling Creek, Lincoln Spring, and Depauw Valley drainage areas in Harrison County lie next to one another and include 13,710 acres in 124 farms.

Each of the watersheds has had a problem of flash floods from intense rainstorms that have caused scour and sediment damage, destruction of fences, and damage to private and public roads. Rolling to steep topography unprotected by conservation practices contributed to the problem. Intensive land treatment is planned by the owners with help from the Soil Conservation Service.

The special ACP project will accelerate the land treatment by cost-sharing any of the practices in the ACP handbook up to the maximum Federal cost-share limitation per farm. Also, a higher than normal percent of the cost of some of the erosion-control practices will be borne by the program.

To be eligible, the farmer as a cooperator with the Harrison County Soil and Water Conservation District develops a conservation plan for his farm with SCS assistance. The County ASCS Committee then may offer to share the cost of any conservation practice in the county ACP handbook that is called for in the plan.

Although this project has been in operation only a short time, much progress has been made. Sixty farmers with 9,134 acres (66 percent of the area) are cooperators with the district and are applying conservation practices on their land. ASCS has directed $43,301 of ACP cost-share assistance to this special project area, and the results can already be observed. ♦

Trees for Lincoln Hills

Everybody pitches in to do the impossible in a community self-help forestry program

By Al G. Dauby and Mitchell G. Hassler

Chairman, Perry County Soil and Water Conservation District and Lincoln Hills RC&D Forestry Committee, and RC&D Project coordinator, SCS, Cannelton, Ind.

"I'm a busy man but I'll attend one more meeting to see what this is all about," said Chris Leibering, secretary of the Lincoln Hills RC&D Forestry Committee, during its first session in November 1964.

This was the feeling of other forestry committee members representing the four-county Lincoln Hills Resource Conservation and Development Project area. He and they did attend the second meeting and discovered what they could do by working together. It was all set forth in the project plans.

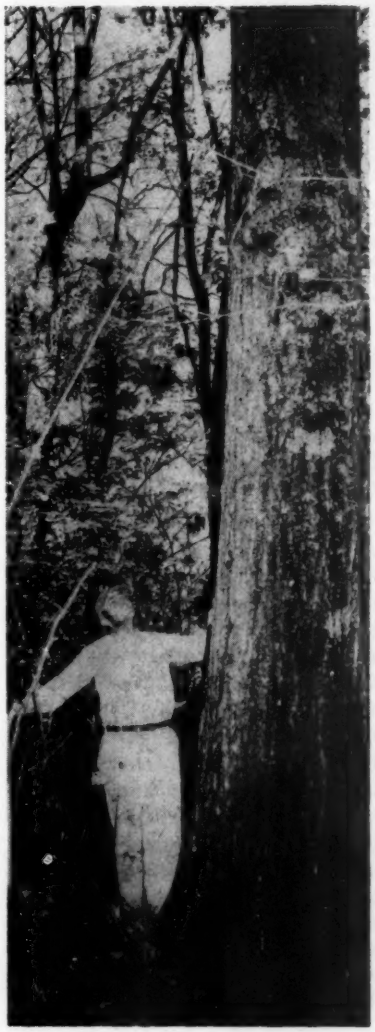
Staring the committee right in the face were 1,000 acres of gullies in the Middle Fork of Anderson reforestation project measure. It seemed to be an impossible task—to plant 1,000 acres (a million trees) in 5 years in this small watershed area. Nevertheless, a goal to plant 200,000 trees (200 acres) was set for the spring of 1965.

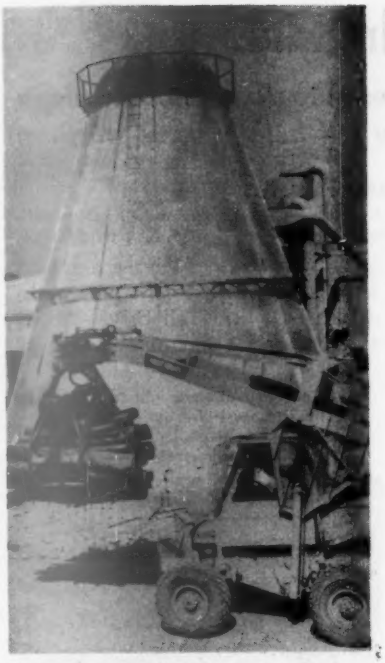
Here is the way it developed. Planting stock was to be made available with RC&D funds to the soil and water conservation districts. They in turn would furnish them free of charge to cooperating landowners. The Agricultural Stabilization and Conservation Service agreed to pay 80 percent of the cost of planting as cost-shares.

The forestry committee knew they had a big job on their hands, so they called two meetings. The first was for planning, and the second was for action.

An "all out" effort was launched with active participation from the following: Local individuals, newspapers, Kiwanis clubs (Cannelton and Tell City), ASCS County and Community commit-

Not many of these giants are left in the Lincoln Hills, but this one illustrates the potential. This red oak will yield 800 board-feet of lumber.





When Storrs Wood Products, Inc., is in full production, it will employ 70 people in the plant making particleboard and 300 to 400 in the woods supplying the raw materials on a part-time basis.

tees, Anderson River Conservancy District, Perry County Soil and Water Conservation District, Division of Forestry of the Indiana Department of Natural Resources, Cooperative Extension Service, and Soil Conservation Service.

A base ownership map of the entire area was prepared with names of landowners having gullied areas needing to be planted. Lists were prepared of these names and given to persons acquainted with the people involved. The County Extension Agent sent two letters explaining the project measure boundaries and benefits to be realized, one letter to local resident owners and the other to absentee landowners. Cannelton and Tell City newspapers printed maps, pictures, and articles promoting the effort. After letters were mailed and articles printed, door to door contacts began.

The results: 302,000 trees actually planted in 1965 through this RC&D community "self help" approach. In 1966, more than 400,000 trees were planted with less effort. Last spring another 200,000 trees were planted, bringing the total to 900,000 trees (900 acres) planted in a concentrated area. In 3 years the seemingly impossible 4½-year assignment was completed.

Now there are six tree-planting RC&D Project measures being carried out successfully within the four-county area. All are working in a similar manner, drawing upon many sources for assistance. About a million trees and wildlife plants are being established each year. New cooperators are being added by the conservation districts at higher rates than ever before.

Three local commercial tree planting crews have been organized and employ about 40 to 50 persons. Many landowners plant their own trees and wildlife plants during slack season.

Timber stand improvement parties have been successful in getting work started where nothing but good intentions existed before. The TSI party approach allows six to eight landowners to work together. On 1 day they work on one party member's farm and do 10 acres of timber stand improvement. On another day they all go to another member's woods and complete another 10 acres. They continue this until each has completed an equal acreage, then the process starts all over again.

Two new pulpwood using industries, WESCOR Corporation and Storrs Wood Products, Inc., are operating and using raw materials from this area. The forestry committee assisted in setting up pulpwood clinics to inform potential pulpwood producers of income opportunities. Industry representatives attend regular forestry committee meetings and participate.

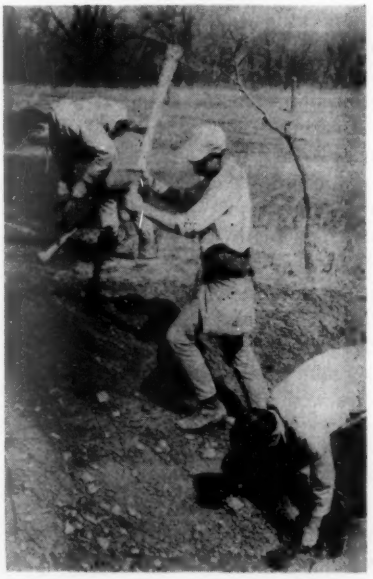
Two sawmill clinics have been held with some 100 mill owners, operators, and workers attending each one. All aspects of making a milling operation more economically sound and efficient were presented. Discussion and demonstration topics included log grading, sawing for grade, edging and grading lumber for higher profit, record keeping, and cost accounting.

Lincoln Hills leaders have learned by now never to give up and to look toward all possible sources for assistance. A lumber grading short-course was needed, but there were no instructors available in the Lincoln Hills. Finally, Stem Veneer Company at New Albany agreed to provide an instructor and facilities. Twenty-two persons enrolled for the course, and 21 completed the six evening sessions.

Christmas tree management and marketing demonstrations have been conducted on three occasions. Now a Lincoln Hills Christmas tree growers committee has been formed. It will work toward forming a Christmas tree management and marketing cooperative.

(*Continued on p. 114*)

A million trees and wildlife shrubs are being planted each year.



Job Corps conservation center gives living and learning experience

By A. Claude Ferguson
Forest supervisor, Hoosier National Forest, Bedford, Ind.

Branchville Job Corps Conservation Center on the Hoosier National Forest in the heart of the Lincoln Hills Resource Conservation and Development Project is operated by the Forest Service in cooperation with the Office of Economic Opportunity.

Branchville has a rated capacity of 112 corpsmen. It is a self-sufficient living-learning center. The conservation center program is designed to meet the needs of boys whom society, the home, local schools, and local communities have failed to serve. Enrollees are characterized as nonreaders, nonwriters, and dropouts.

Published statistics show 65 percent came from homes where the breadwinner is unemployed, 60 percent from substandard housing, and 45 percent from broken homes. Thirty percent cannot read or write above the 5th grade level, and 80 percent had never seen a dentist or doctor before joining Job Corps.

The Jop Corps effort, in a period of economic boom, is aimed to give bypassed youth basic education and work experience so that they may join the mainstream of society. Production is a goal but only as a part of the job of helping corpsmen become men.

That Branchville is in the Lincoln Hills is fortunate but no accident. Surveys indicated that real opportunity to combine Forest Service and Job Corps programs for improving human and natural resources existed in the Crawford upland of Perry County, Ind. Resource project opportunities were many and the social and physical climate excellent. Community acceptance within the area has been "nothing but the best" in Forest Service experience.

The work projects are as varied as the Forest Service multiple-use program. Projects have been completed in recreation, wildlife habitat improvement, timber management, watershed protection, engineering, fire control, and administration improvement. The corpsmen have also added training and improvement projects to facilities at the center.

A few examples demonstrate the scope and variety of the projects. Corpsmen have helped with the Forest Service part of the Middle Fork of the Anderson River Small Watershed Project. They have completed the wildlife and recreation developments at Saddle Lake valued at $69,500. This work included a campground, picnic area, boat landing, swimming beach, water-supply development, soil stabilization, and fish and wildlife habitat improvement. The recreation area was dedicated by Secretary Freeman on June 29, 1967.

The corpsmen accelerated the Wild Turkey Management Program by installing the Mogan Ridge Turkey Management Area boundary controls well ahead of schedule. A 5-man side-camp at Hardin Ridge Recreation Area on Monroe Reservoir built shelter houses, an entrance gatehouse, and has done extensive water-management and landscaping work.

On-Center learning-improvement projects have included major buildings, sidewalks, landscaping, and recreation improvements. Community projects have included cleanup of a Civil War cemetery and construction of recreation facilities for public schools.

Job Corpsmen Norris Burdette of East Chicago and Andrew Richardson of Detroit explain their work on a building at the Saddle Lake Recreation Area as the Secretary of Agriculture inspects USDA activities in the Lincoln Hills RC&D Project after dedicating the multipurpose watershed structure.

What of the corpsmen after graduation? A recent survey of 229 Branchville graduates showed the following: 83 boys went to urban centers for advanced specialized training, three took MDTA training courses, and two specialized in heavy equipment training; 12 returned to school and 36 went into service (over a dozen are in Vietnam); and 93 are working in a wide variety of jobs.

The rewards to those working in the program are many. Many 4-F boys see their aspiration to be accepted for military service fulfilled. Boys averaging $0.80 an hour before enrollment now average $1.75 an hour with many of the obstacles to advancement removed. Boys who could not read or write are now writing their own checks and reading and paying their bills. ♦

Soil and water conservation are basis for building rural economy

By Earl Blank and Donald E. Sloan

Chairman, Lincoln Hills RC&D Committee, and work unit conservationist, SCS, English, Ind.

Conservation planning comes first in the conservation, development, and utilization of natural resources.

Accidental or incidental conservation can't be effective. Conservation must be purposely and intentionally planned, scheduled, applied, and maintained to give lasting benefits.

These are the beliefs that guide soil and water conservation district supervisors, RC&D committee members, and allied groups in the Lincoln Hills Resource Conservation and Development Project in southern Indiana.

Conservation planning on Lincoln Hills farms is now at a rate 112 percent greater than before the project was approved. There have been 941 new district cooperators enrolled, 714 conservation plans prepared, and 107 conservation plans revised since the RC&D Project became operational.

Effective conservation planning results in accelerated application of needed conservation practices. Feasible alternative land uses are determined by a soil survey and inventory of each parcel of rural and urban land. When the choice has been made of how land will be used, needed conservation practices and treatment can also be planned.

Typical of the acceleration in soil and water conservation work is the steady increase in the number of ponds, lakes, and spring developments. The project sponsors agree that water-conservation practices are of the highest priority and have encouraged an increase in grassed waterways, terraces, and diversions. Some 2,150 acres of critical eroding lands have been planted to trees.

Robert Walther (upper left) has built field fences on the contour to make his conservation pattern permanent. Eroded land (above) is being restored at an accelerated rate by conservation district cooperators. Use of family labor (below) makes strawberry profits greater on the Hobart Ingram farm near English.

More grass per acre fed to high quality livestock (upper right) and a new intensive hog-feeding operation (middle right) are among RC&D measures for higher economic returns.

Perhaps the major achievement has been the conversion of marginal cropland and idle land to productive grassland. More than 70,000 acres of pasture and hayland has been established the past few years. The Conservation Needs Inventory showed 102,000 acres of grassland in 1959. The Lincoln Hills conservation needs committees estimated that 152,000 acres would be in grasslands by 1975. It is now thought that the figure will be closer to 280,000 acres.

Purdue University, with local financial assistance, purchased 1,016 acres of idle, eroded Zanesville and Wellston soils in 1953 to conduct research on a grassland-livestock program.

University officials are finding new and economical ways to grow and utilize adaptable forages to support a feeder-livestock economy in southern Indiana. They are very

A water collection system (below) makes clean spring water available on the Kenneth Speedy farm. Perry County Conservation District supervisors (lower right) work together and eat together at their annual meeting and sausage and pancake supper.

optimistic of the future prospects.

Lincoln Hills farmers, in 1959, purchased stock in The Producers Livestock Marketing Association in order to have a marketing facility. The market was built near Milltown in Crawford County. Since 1959, 14,014 feeder calves and 106,511 feeder pigs have sold for $3,473,350.27 through this market. Plans are now being considered to expand facilities to handle the increasing sales.

Proper forage and livestock management, performance testing to produce faster-gaining cattle, and good markets hold promise of a $25 million feeder cattle, land-based industry in the Lincoln Hills.

The entire conservation future in the Lincoln Hills looks bright. The local people have charted a sound course, they have developed guidelines and open-end plans, priorities have been assigned, target dates for project measures are set, and schedules have been made to effect a brighter future—economic and social—for the generations to come. ♦

Wide range of water-control measures meets a primary need of RC&D area

By James J. Acres and Joseph W. Wilson
Area conservationist and work unit conservationist, SCS, Paoli and Rockport, Ind.

Small watershed projects and RC&D Project measures, now in various stages of development, when completed will provide flood control and water development for about a third of the million-acre Lincoln Hills area.

One small watershed project under the Watershed Protection and Flood Prevention Act and three water-management project measures being cost-shared with RC&D funds are in active stages of operation or planning.

Two small watershed projects have been approved for Federal assistance in planning. Three other potential small watershed projects and six RC&D water-management measures are in the RC&D Project plan to be considered for activation later.

Construction is already underway in the Middle Fork of Anderson River Watershed Project. Three multipurpose flood-prevention and recreation structures and 5 miles of channel improvement have been completed.

Saddle Lake, the first of a series of multipurpose structures, was dedicated by Secretary of Agriculture Freeman June 29, 1967.

The U.S. Forest Service, with the help of the Branchville Job Corps Conservation Center, completed the recreational facilities and opened Saddle Lake for public use in early July. Recreationists have used the camping, picnicking, beach, swimming, and fishing facilities since the opening day.

One more multipurpose flood-prevention and recreation structure, two single-purpose flood-prevention structures, and 29 miles of channel improvement will complete the structural works of the Middle Fork Project. All the multipurpose structures are on National Forest land. When completed, this watershed will boast one of the finest water-based recreation complexes in the country.

Seventy percent of the needed land-treatment measures has already been applied. For every dollar spent, there will be a return of $2.30. The project will bring in more than one-half million dollars in benefits annually.

Preliminary plans developed for the Indian Creek watershed indicate that the project, if carried to completion, would bring nearly $1 million annually in benefits to the community. More than 1,000 acres of the watershed is in Harrison County, a part of the RC&D Pro-

The recreation area at Saddle Lake was a busy place on opening weekend.

ject area. Fourteen of the proposed seventeen structures are multipurpose. Six structures are planned for flood prevention and municipal water supply, seven for flood prevention and recreation, one for flood prevention, recreation, and agricultural water management.

More than $1½ million (installation cost) of land-treatment practices have already been applied. Parts of this watershed are already "a showcase of land treatment."

The main Anderson River watershed in Perry, Spencer, and Crawford counties has just been approved for Federal assistance in project planning. Preliminary plans submitted in connection with the project application anticipate more than one-half million dollars in benefits annually to the area. It will return $1.50 for each dollar spent. Land-treatment measures valued at $1 million, about half the total needed, are already on the land.

Applications on three watersheds—Indian Creek, Little Pigeon River, and North Branch of Little

(*Continued on page 120*)

Work wanted—not welfare

Ten young handicapped children in Perry County, Ind., have found they have exceptional skills. They are working in a book bindery enterprise designed especially for them—a new local industry called Perry County Industries, Inc.

Going into its third year of operation, the bindery can provide service to libraries, law firms, schools, churches, government agencies, and other organizations and individuals. Among items turned out was the second printing of the Lincoln Hills RC&D Project plan.

Equipment worth $6,000 is on indefinite loan from the nearby St. Meinrad Abbey Press. The "indefinite" part is tied into the need for more orders for book binding, says Supervisor Gordon Stirk, Tell City. ♦

Supervisor Gordon Stirk helps handicapped boys learn bookbinding skills.

Loans for water, land improvement, and recreation

By Herman R. Behr
District supervisor, Farmers Home Administration, Corydon, Ind.

In the Lincoln Hills there is a need—an urgent need—for pure water and systems to deliver it to the users.

To overcome this problem, people in the Lincoln Hills joined together to form associations and create rural water systems.

Taking advantage of low-interest loans from the Farmers Home Administration, seven such systems have been installed. They serve more than 1,000 families and eight schools. Another project is under construction, and approval has been given for still two more systems which will serve 350 families and two schools.

The rural waterlines have brought many rural areas back to life. With the water comes new houses, expanded farming operations, a rise in land values, and more jobs.

Systems now planned or installed have a potential of serving more than 3,000 families on their 178 miles of pipelines.

FHA has made loans of RC&D funds in other activities: (1) To the Spencer County Drainage Board $107,000 for agricultural water-management purposes in the Baker Creek improvement project; and (2) to the Corydon Country Club $85,000 for expansion of recreational facilities.

As development goes forward the need for advance planning is recognized. Approved grants in three of the counties will permit comprehensive studies of rural land and water-resource needs. To meet these needs, loan funds will play an important part. ♦

Neighborhood group action makes a conservation showcase

Community spirit has led to an 8,000-acre conservation showcase in the Ogle County Soil Conservation District, Ill., with nearly complete conservation applied to land in two subwatersheds on the upper end of Seven Mile Branch.

On 36 farms that received conservation treatment in the past 2 years, landowners completed 97 grassed waterways, 17 miles of tile drain, 16 erosion-control structures, 4 miles of channel improvement, and one flood-retarding dam and lake. In addition, 26 farmers plowed on the contour, and 12 built terraces.

Community cooperation and group planning highlighted the drive throughout. The Agricultural Stabilization and Conservation Service, in fact, made the Seven Mile Creek area a special ACP cost-sharing project because of the demonstrated community spirit. The Soil Conservation Service provided technical service through the conservation district.

Landowners and highway officials cooperated to see that drop inlet structures were installed at bridge abutments, not at fence lines. When a structure was planned at a site where a new bridge was also needed, county officials often shifted priorities so the bridge and structure could be built together. This reduced costs to the landowners involved.

Meeting half way

Highway officials also gave permission for farmers to place tile under roadways provided metal pipe was installed under the road itself. Neighboring farmers joined their tile lines midway to eliminate the cost of an outlet on one side of the road and a surface inlet to retake the water on the other.

Most of the projects wouldn't have come about without cooperation. For example, one proposed dam would have backed water over a county road culvert. SCS engineers met with Ogle County highway and Buffalo Township officials to explain the problem. The officials decided to spend approximately $6,000 to raise the culvert 7 feet. In return, they obtained earth for road fill from the lake bed area. The dam also protects highway bridges downstream. And it backs up a 24-acre lake.

Soil from the lake bed was also used to fill an excavated pit on the Polo Community High School grounds. The telephone company relocated an underground cable which would have been submerged.

With so many cooperative efforts, it is hard to name the most outstanding. But to John Conroy, SCS work unit conservationist at Oregon, Ill., group planning and pooling agreements stood out.

Pooling agreements

"Often a grade stabilization structure at the lower end of a channel could stabilize waterways for two, three, or even four farmers upstream," said Conroy. "By planning jointly they could eliminate the need for several structures and all share the cost of just one."

Pooling agreements worked out with ASCS enabled farmers to share the costs among themselves, and to receive ACP cost-shares on a group-plan basis. In all, 11 pooling agreements were signed.

The State ASCS committee made available $222,585 for conservation work in Ogle County—$112,585 through regular funds and $110,000 extra for the special project in the Seven Mile Creek area.

A preliminary investigation has been made for a possible watershed project under Public Law 566. If the project is approved, more than 60 percent of the needed land treatment will already be applied. ♦

New education center in Louisiana

To meet a pressing need to upgrade educational opportunities, to produce personnel that can meet the requirements of industrial organizations in the region, and to help residents appreciate and understand the natural resources of the area, the North Louisiana Supplementary Education Center was established at Northwestern State College, Natchitoches, La.

The center plans to service 35 school systems in northern Louisiana. It will concentrate on basic educational programs in science, mathematics, conservation, and general analysis of planning for maximal use of educational and human resources.

It particularly aims to develop in citizens of all ages an increased consciousness of the importance of natural resources, and it will attempt to produce a supply of teaching materials designed to assist teachers in correlating the teaching of conservation with various other subject-matter fields in the elementary and high-school curricula. Such material would emhasize concepts of conservation in the proper development, management, and multipurpose utilization of natural resources.

The center, which will have 16 professional employees on its staff, is funded by a grant from the U.S. Office of Education under the Elementary and Secondary Education Act of 1965. ♦

Students like soil monolith tours

By Bruce G. Watson
Assistant State soil scientist, SCS, East Lansing, Mich.

Have you ever taken anyone to the field in quest of miniature soil monoliths? If not, you and those interested in conservation have missed a rewarding and educational experience. One science teacher, who recently attended a soil monolith tour, commented, "This is the first time I have really understood the difference between soils."

During the past summer, science and agriculture teachers, conservationists, county agents, and others participated in soil monolith tours in Michigan. On these tours, usually arranged by the Soil Conservation Service, each person prepared monoliths of eight of the major soils in the county and by so doing became thoroughly familiar with the soils.

This was the first time many participants had seen the real "business part" of a soil—that is, the part below the surface layer.

Eight sites were selected for each tour. At each site an SCS soil scientist briefly described the nature and limitations of the soil. He passed out a soil interpretation sheet for each soil that further explained the degree and kind of limitations of the soil for farm and nonfarm uses. By the time the tour ended the people were using and knew the meaning of terms such as "soil structure," "permeability," "drainage," and the like.

An SCS soil scientist compares eight soils for these agricultural workers. This group made 48 such soil monoliths of eight different soils in 1 day.

Miniature soil profiles are easy to make. First, sample each layer of a soil profile with a special cutter. Cutters of different sizes are used so as to give a sample one-fourth actual size of the layer in the soil. For example, a 3-inch cutter is used to sample a 12-inch layer.

Next, put each sample into a 12-inch long, 2-inch wide, and 1-inch deep wooden tray in the same relative place it occupied in the natural profile. Even though only one-fourth actual size, the finished profile is true to scale.

Finally, pour a clear plastic solution, such as vinylite dissolved in acetone, over the surface of the profile. This solution hardens and cements the soil into the tray. Paint the trays white and you have an attractive model of a soil from your county.

Scale model soil profiles are lightweight and compact and are easier to carry than the full-size profiles. You can arrange the profiles, along with pictures, into a large variety of displays. The soil profiles are good visual aids for teaching, meetings, television programs, fairs, and field days.

"These profiles will sure make teaching about soil resources easier," commented one young science teacher, who later used the soil profiles and the soil interpretation sheets in several classroom exercises. ♦

District cooperator boosts income

Tobacco grower Willie Hickman, SCS Conservationist C. D. Boggs, and Assistant County Agent W. P. Johnson (left to right) are reviewing Hickman's farm conservation plan.

Tile drains, installed according to a farm conservation plan, meant the difference between bankruptcy and a profitable farm enterprise for Willie Hickman, a tobacco farmer of the Horry Soil and Water Conservation District in South Carolina.

In 1965 he was on the verge of losing his farm to his creditors. That year he made only 1,400 pounds of tobacco to the acre on his low wet land, although his poundage allotment was 1,819 pounds an acre. His tobacco wasn't bringing in enough money to support his family and meet his obligations.

With the help of the Soil Conservation Service and his district, Mr. Hickman installed 2,000 feet of tile on some of his best land. A loan from the Farmers Home Administration and cost-sharing furnished through the Agricultural Conservation Program paid the bill.

After applying the right amount of fertilizer and potassium sulfate indicated by a soil test, Hickman, in 1966, made 2,700 pounds of tobacco per acre on his improved land. He was one of the few farmers in the county to make his poundage allotment.

Hickman plans to install another 2,000 feet of tile also called for in his conservation plan so he can rotate his tobacco with soil-building crops for better disease control.

Better crops are going to help the Hickman family live better. They are planning to put in a pressure water system for the first time. ♦

Trees

(Continued from p. 106)

The RC&D Forestry Committee also saw need for modernizing old-fashioned, inefficient logging operations. Since practically no modern equipment was working the area, it was necessary to look again for assistance. Nelson Rogers and John Brownell of the U.S. Forest Service came to the Lincoln Hills from Missouri and Illinois over snow-slick roads last winter to discuss opportunities and possibilities for a logging equipment demonstration. After much planning of details and several special meetings, a successful equipment demonstration was held last May.

One equipment dealer has sold four powerful rubber tired "skidders" in the Lincoln Hills. A local sawmill owner who purchased a skidder said, "This is the first time since I have been in the sawmill business that my logging operation is keeping up with my sawmill."

Forestry operations have extended into highway beautification and erosion control with Kiwanis clubs, Boy Scouts, Girl Scouts, business men, conservation district supervisors, and many others assisting.

Numerous other activities are underway. They include forest fire prevention and suppression, forest resource resurvey, study of a forest classification law, forest management and cooperative marketings, black walnut management and utilization, permanent log grading plots, attraction of more wood-using industries, and maple sirup promotion.

Technical forestry assistance, at present, is the outstanding need, forestry committee members feel. The table shows progress made as a result of the limited technical help that has been available.

Forestry assistance	*1964*	*1965*	*1966*
Landowners assisted	312	410	493
Management plans	48	177	223
Land involved, acres	8,781	14,460	25,293
Trees planted, acres	374	855	1,518
Timber stand improvement, acres	388	397	311
Woodland fencing, rods	2,033	880	2,286
Timber harvested, thousands of board feet	133	718	1,220
Sawmill operators assisted	32	28	47

On the sidelines, writers and broadcasters are acclaiming the woodland efforts and their importance to the economy. A well-attended press conference kicked off the first tree-planting spree. News articles, radio, and television are being used liberally. The Cooperative Extension Service, Purdue University, is publishing a Lincoln Hills Forestry Newsletter that goes to all forest landowners. ♦

Watering places on the Tigner ranch are located to distribute grazing over all of the rangeland.

Rancher manages his livestock to improve range condition

By Noel Marsh and Ivan W. Dodson
Work unit conservationist and range conservationist, SCS, Magdalena and Albuquerque, N. Mex.

New Mexico rancher Fletcher Tigner uses carefully located water developments and protein supplements on his 40,570-acre ranch to achieve uniform grazing and improve his grass resources.

Tigner says, "The most important objective on a ranch is to use the grass properly, and to do this it is necessary to work with the stock and get good distribution. In good years I don't go out and buy more cattle to graze off the extra grass; it's like money in the bank."

The abundance of good grass is indicated by his 90 to 95 percent calf crop and weaning weights well over 400 pounds.

His ranch is located in some of the more rugged rangelands in the Salado Soil and Water Conservation District.

The eye of the master

Mr. Tigner believes that the key to achieving better livestock distribution is watching his cattle and learning their habits. He has found that cattle in his rough country go to water only once every 2 days but use protein blocks every day.

In order to get the cattle to graze some of his higher range, he must induce them to leave the long narrow canyons, climb the steep trails, and stay on the ridgetops.

He places a protein block at the base of a trail leading to the area he wants grazed. Then he places another block on the first bench higher up. Finally, he locates still another protein station up in the area to be grazed. By doing this, he can keep his cattle at the higher elevations to graze areas that otherwise would not be used.

On his lower-lying, more level pastures, Tigner also has been able to get a greater degree of use on areas farther from water through strategic location of protein blocks.

He agrees with most people that water is the best means of opening large range areas to grazing. He is convinced, though, that the area served by a watering place can be enlarged and the uniformity of use within the area influenced to a great degree by placement of the protein blocks.

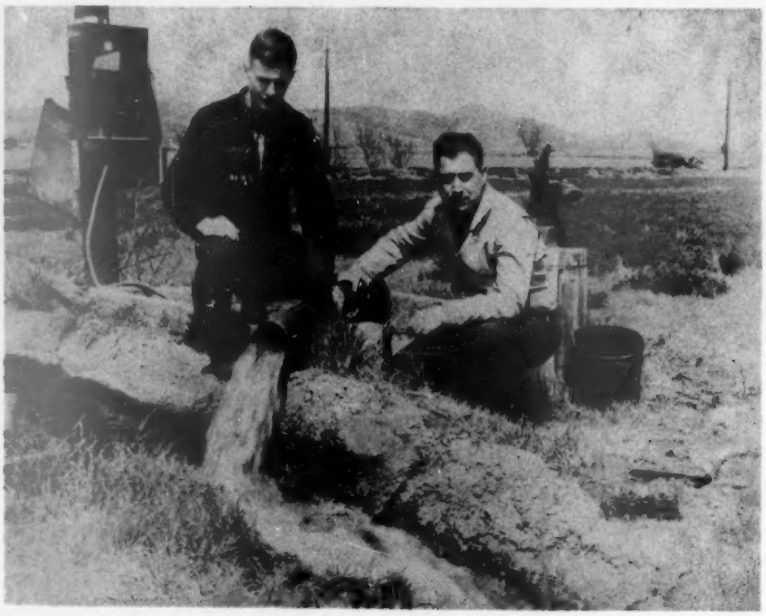
Pipelines and ranch roads

He has installed more than 12 miles of pipeline to provide dependable water where it is needed most.

There were a few livestock "congregation" areas when the Tigners acquired the ranch. The waterings nearest to these have been fenced off and protein stations located at the far side of these pastures to allow the depleted areas to recover.

His ranch roads are built on the contour wherever possible and protected with small diversions to prevent erosion. This, coupled with the maintenance of a good to excellent condition grass cover, makes erosion negligible on the ranch. ♦

FFA soil and forest conservation awards



FFA soil and water management award winner, Johnny McElroy (left), and his vocational agriculture instructor, Floyd Brownsworth, watch a stream of water from McElroy's irrigation well.

Johnny McElroy, 19, Snyder, Okla., received the national soil and water management award, and Paul Early, 19, Kalamazoo, Mich., received the national forestry award at the 1967 Future Farmers of America Convention in Kansas City, Mo., in October.

The $250 awards, sponsored by the Future Farmers of America Foundation, Inc., were among those presented to outstanding FFA members.

McElroy completed 4 years of vocational agriculture at Snyder High School, graduated in 1966, and now attends Oklahoma State University. A Star State Farmer, he lives on his parents' 3,170-acre ranch near Snyder where he has irrigated his own 160 acres and helped apply terracing on 560 acres of rented land.

Early, a 1966 graduate of Plainwell High School, now attending Western Michigan University, produced Christmas trees in partnership with his father. During his 4 years in vocational agriculture, he also set up a tree farm including some 30,000 Scotch pine, spruce, and Douglas fir.

Three FFA members received regional awards of $200 each for their work in soil and water management.

Jimmy Joe Below, 19, Delta, Mo., spent 500 hours helping his father install drainage ditches and clear lowland underbrush on their 300-acre diversified farm near Delta.

Rick Beck, 18, Avon, Mont., maintains a herd of 21 beef cattle on improved meadows and has helped his father with a clearing and drainage project on 110 acres of bottom land.

Steven James Stewart, 18, Bath, N.Y., took over the family farm and cleared 50 acres of brush, renovated 20 acres of pasture, planted more than 5,000 trees, and installed water-management practices.

Three regional forestry awards of $200 each were also awarded for outstanding accomplishments.

Charles McCarty, 18, Sylvester, Ga., developed a comprehensive conservation and forestry improvement program under the guidance of his vocational agriculture instructor and his parents.

William Radke, 18, Corvallis, Oreg., has 6,000 Christmas trees, 70 blue spruce plants, 1,000 Shore pine, and 10,000 Bishop pine seedlings, and does forestry work on his uncle's farm.

James Edward McCaulley, 18, Bellwood, Pa., cares for 64,000 trees on his grandmother's farm where he carries out conservation and wildlife management.

All award winners have also served as officers and in other activities of their local FFA chapters. ♦

USDA aid for rural water and sewer systems

About 1,200,000 farm and other rural people have benefited from USDA loans and grants for new or improved water-supply or waste-disposal systems in fiscal 1967. The total is about double the number for the preceding fiscal year and equals the number for all previous years since the program began in 1961.

These people live in or near small rural communities, 1,112 of which received loans or grants from the Farmers Home Administration in the fiscal year ended June 30. Such aid is given to communities of 5,500 or less population. The 1967 projects, in 45 States and Puerto Rico, received $175.2 million in loans and more than $22.5 million in grants. ♦

Meetings . . .

Symposium to discuss education for meeting food and resource crises

The dual crisis in world food supply and in natural resource conservation will be explored in a six-session symposium, "Education for the Crises in Food and Natural Resources," as the program of Section O (Agriculture) of the American Association for the Advancement of Science (AAAS) during its annual meeting in New York, N.Y., December 27 to 31.

Whether major catastrophes can be averted may depend in large part on the education of future scientists and of technologists and technicians whose endeavors complement and supplement the scientists' efforts, many scientists believe.

The first two sessions are devoted to the identification of significant problems that future graduates in agriculture and natural resources will encounter and will explore the adjustments to change required at all levels of higher education in agriculture and natural resources.

A three-member panel representing government, education, and business will open the first session with a discussion of the challenges that future graduates will face. The panelists are: George L. Mehren, assistant secretary, USDA; Charles E. Palm, dean, New York State College of Agriculture, Cornell University; and Thomas Ware, chairman of the board, International Minerals and Chemicals Corporation.

The third and fourth sessions will focus on two areas of widespread concern: "Education and Worldwide Agricultural Productivity" and "Education and Natural Resource Renewal, Use, and Preservation." Norman A. Berg, SCS, will speak on "Developmental Training for Career Conservationists."

How institutions can collaborate more effectively and how disciplines can interrelate more productively is the subject of the fifth session.

The final session will consider the future role and character of the rapidly growing technician training programs in agriculture and natural resources.

Other lectures on the program include: "Can Poor Countries Benefit From the Scientific Revolution?," "The Experimental City," and "Environmental Pollution." In addition, the annual meeting will feature general symposia as well as numerous special programs in all major fields of science.

National Congress for Recreation and Parks

"Quest for Quality" is the theme of the 1967 National Congress for Recreation and Parks which will be held in Miami Beach, Fla., December 3 to 7.

The Congress, sponsored by the National Recreation and Park Association, provides an educational forum for the recreation and park movement for the purpose of identifying and examining broad basic trends, issues, and problems which will affect the leisure and recreational patterns of North America.

Approximately 4,000 professional and lay leaders in the recreation and park field will discuss, explore, and analyze developments affecting their own specialized interest and agency settings.

More than 50 specialized educational sessions covering every aspect of the recreation and park movement, four general sessions, numerous tours, exhibits, and demonstrations have been planned for Congress participants. Manufacturers of recreation and park supplies and equipment will exhibit and demonstrate their products educationally to the Nation's recreation and park leaders. The Congress will also feature the largest outdoor exhibit of parks and recreation equipment in the world.

Among the nationally known speakers are: United Auto Workers' President, Walter L. Reuther; Claude R. Kirk, Governor of Florida; Dr. Robert "Bobby" Brown, former star third baseman of the Yankees and presently an outstanding heart specialist and chairman of the Park and Recreation Board in Fort Worth; and August Heckscher, Jr., New York City Commissioner of Recreation and Cultural Arts.

Dates and places

December 3-7, National Congress for Recreation and Parks, Miami Beach, Fla.

6-8, Western Forestry and Conservation Association, Seattle, Wash.

11-14, American Farm Bureau Federation, Chicago, Ill.

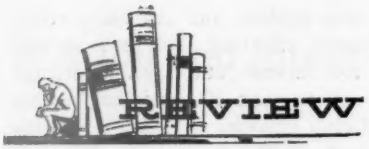
12-15, American Society of Agricultural Engineers, Detroit, Mich.

27-31, American Association for the Advancement of Science, New York, N.Y.

January

21-24, American National Cattlemen's Association, Oklahoma City, Okla.

28-31, National Woolgrowers Association, Dallas, Tex. ♦



The Federal Lands Since 1956, Recent Trends in Use and Management. By Marion Clawson. 1967. 113 *pp., illus. Johns Hopkins Press. Baltimore, Md.* $4.

This supplement updates to 1965, the data and analysis included in *The Federal Lands: Their Use and Management*, 1957, reviewed in *Soil Conservation*, December 1965. In addition to a simple updating of the figures, comparisons of actual events since 1956 with the estimates made in 1957 of what was most likely to happen, particularly as to use, receipts, and expenditures, were also made.

New publications

A Study of Residential Water Use. By F. P. Linaweaver, Jr., John C. Geyer, and Jerome B. Wolff. *1967. U. S. Dept. Housing and Urban Development, Federal Housing Admin., HUD-TS 12. 79 pp., illus. $0.55.* Final report of the study conducted by the Johns Hopkins University in cooperation with 16 water utilities. Data from 41 typical subdivisions representing all important climatic regions throughout the country are included. Major factors influencing water use, including climate, economic level of users, and types of pricing systems, have been considered and incorporated into this study. The results show that residential water demands in any given area are influenced by the total number of consumers, their economic level based on the market value of their homes, the average irrigable area of their lawns, the rate of moisture loss through evapotranspiration, and the quantity of effective precipitation.

The Why and How of Rural Zoning. By Erling D. Solberg. *1967. USDA Agr. Inf. Bul. 196. 58 pp. illus. $0.40.* Describes the various kinds of rural zoning regulations that can be used, how they are to be used, their purposes, and the benefits to the community and its people that will result from their use. It presents an overall picture of the progress of zoning in the United States and the problems and steps involved in zoning.

Conservation Teaching Charts. *1967. Boy Scouts of America, New Brunswick, N. J. 10 folded charts, 17 x 22 in. plus detachable legends 17 x 6 in. $2.50.* Simple diagrammatic drawings illustrate the concepts of: The pyramid of life, carrying capacity, animal needs for life, aquatic food chain, terrestrial food chain, plant and animal succession (prairie and forest), pond-to-forest succession, timber stand improvement, and profile of a western mountain. A few pararaphs of very simple text are printed at the bottom of each chart in a way permitting it to be detached. The subject matter both of drawings and of text is so simplified that the effectiveness of the materials for teaching must depend largely on the explanations of the teacher.

Digest of Federal Natural Resource Legislation, 1950-66. By Bruce G. Campbell and P. Timothy Lawlor, Jr. *1967. USDA Econ. Res. Serv. ERS-355. 61 pp.* Summarizes natural resource legislation applicable to agricultural, forestry, and related programs enacted by the Congress from 1950 through 1966. Some earlier legislation is also included to provide the researcher with basic applicable legislation.

Outdoor Rcreation Space Standards. *1967. U.S. Dept. Int. Bureau of Outdoor Recreation. 67 pp. $0.45.* Tables on space standards, size of the facility, and the number of persons to be served for parkland and recreation areas, play areas, winter activities, golf, tennis, basketball, baseball, boating, canoeing, water skiing, fishing, swimming, hiking, nature study, horseback riding, picnicking, camping, hunting, drama, and concerts, and a bibliography for the tables.

Taxation of Farmland on the Rural Urban Fringe. By Thomas F. Hady and Thomas F. Stinson. *1967. USDA Agr. Econ. Rpt. 119. 80 pp.* Summaries of State action: legislative, administrative, and judicial, for 23 States (Calif., Conn., Fla., Hawaii, Ill., Ind., Iowa, Md., Mass., Mich., Minn., Nebr., Nev., N. J., N. Y., Ohio, Oreg., Pa., R. I., Tex., Va., Wash., and Wis.).

A Journey with a Ra'ndrop Through a Small Watershed. By Sharon Bunch. *1967. Virginia Assoc. of Soil and Water Cons. Dists., in cooperation with Virginia Soil and Water Cons. Comm., Richmond.* An educational cartoon story for the lower elementary grades. Single copies available on request.

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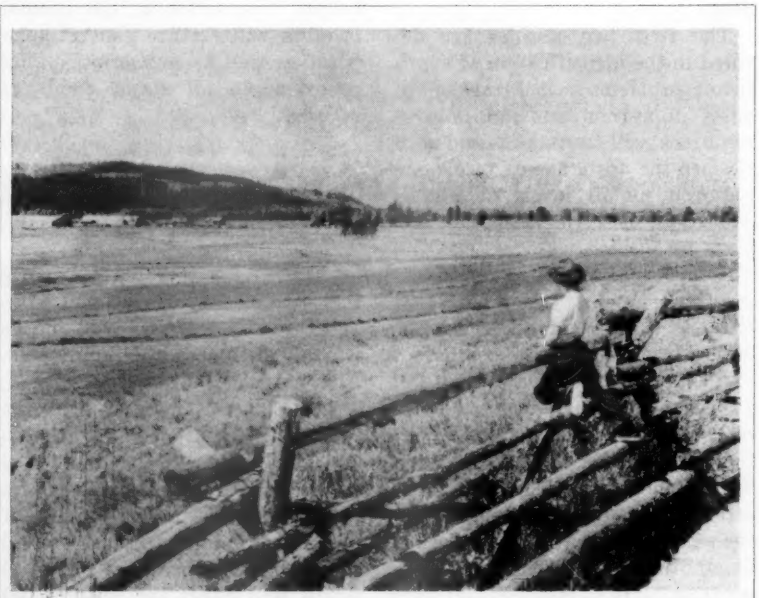

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From the Administrator:

Rural Renaissance in RC&D Projects

The great challenge before conservationists, as Assistant Secretary John A. Baker recently said, is to help our Nation step up to a new level of civilization through the progressive process of "creative urbanization and rural renaissance."

To do this, Mr. Baker said, calls for powering the twin thrusts of (a) improving the quality of man's total environment through a Resources in Action program, and (b) building Communities of Tomorrow that match the dignity of man.

Resource conservation and development projects, now initiated in 41 areas of the country, are more than an approach to improving conditions in rural areas. They are, as the articles in this issue demonstrate, effective tools in the process of creative urbanization and rural renaissance.

The RC&D projects are a Department program for which leadership has been assigned to the Soil Conservation Service. To accomplish the goals as defined in the Department's policies for Agriculture/2000, SCS has already made changes in direction of its efforts. These changes provide for more effective assistance to conservation districts and to others with whom we work.

RC&D projects are locally initiated and sponsored, usually on a multicounty basis, by county governments, town and city governments, special purpose districts, and other local citizen groups. They are participated in by State agencies and approved by the State governor.

A project plan is developed before the Secretary of Agriculture authorizes launching the operational phases. In addition to Department agencies, other Federal and State agencies are providing assistance to help people help themselves. The separate project measures tie together into an overall plan under which the many individual elements can be carried forward together in a coordinated manner.

The Lincoln Hills Project in Indiana, the first in the Nation to get into operation, has gained recognition as an outstanding example of such local initiative and coordination. The "rural areas development" idea took hold in that four-county area even before its designation as a pilot RC&D project. People there became accustomed to working together to tackle common problems of soil erosion, low income, poor health, inadequate community facilities, and dwindling population.

The cumulative effect of the wide range of resource and economic developments accomplished in these projects is to bring to these communities the best of both urban and rural life. The creation of new opportunities for employment and for industrial and commercial activity in a rural setting and the provision of first-class community facilities for health services, education, and recreation combine the economic and cultural advantages usually associated with city life with the natural amenities of the country environment.

Such broad-based resource development serves to abolish the dichotomy between rural and urban life. It utilizes the space and resources of the countryside to help solve the problems of congested city cores. It matters not whether we call this process one of creative urbanization or one of rural renaissance because, correctly considered, it is both.

Results are beginning to accrue, in Lincoln Hills and other RC&D projects, in increased jobs, increased income from old and new sources, new taxable wealth, and improved community facilities.

Sponsors of the Lincoln Hills and other RC&D projects take a broad viewpoint both in their planning and actions which go far beyond natural resource conservation, development, and utilization. This is as it should be, since they are in a unique position to understand problems and can best coordinate and direct local efforts with those of State and Federal agencies.

Many measures are being carried out that are not within the authority or responsibility of the Department of Agriculture and its agencies. Guidance is given to local people in securing technical and financial help of the nature required from other sources.

Resource planning and development, however, is not limited to RC&D project areas. A similar approach can be taken elsewhere. Opportunitiees exist everywhere for local leadership to initiate and accept responsibilities for further resource development.

Technical Action Panels can assist local people with many worthwhile activities. Conservation districts can be a directing and coordinating body to perform many resource functions which are an essential part of the total job to be done.

The Soil Conservation Service is in a position to take a leading role in bringing about the rural renaissance that we seek.

D. A. WILLIAMS

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Water control in RC&D area

(*Continued from page 111*)

Pigeon River—are pending approval for Federal assistance in planning.

Two RC&D Project measures, Deer Creek in Perry County and Buck Creek in Harrison County, will provide for flood prevention and water development on about 15,000 acres of land in the Lincoln Hills.

The Deer Creek Project measure, consisting of one multipurpose flood-prevention and recreation structure on National Forest land, is scheduled for construction in fiscal year 1969.

The Buck Creek development, consisting of a multipurpose structure for flood prevention, private recreation, and agricultural water management, will provide about 400 acres of water for a water-deficient area in Harrison County.

The 20,750-acre Baker Creek Improvement Project area, now plagued by floods 4 years out of every 5, is scheduled for a complete "overhaul" by the project sponsors, the Spencer County Soil and Water Conservation District and the Spencer County Drainage Board. Already the conservation district's stepped-up program of terraces, grassed waterways, and grade-stabilization structures is showing a marked reduction in siltation of the streams. Surveys have been completed for 30 miles of channel reconstruction to be carried out by the drainage board.

A contractor and his wife, Mr. and Mrs. C. J. Rust, Cortland, Ind., watch construction from a convenient overlook above the site of a watershed dam.

For years the owners of 200 farms in the area have planted and replanted, risked and lost their seed and fertilizer in a battle against the floods. Rapid runoff from the upland has caused gullies to form in the loessial soil. Silt has clogged stream channels in the fertile bottom lands and caused untold acres of grain crops to go unplanted or unharvested. Homeowners from three towns in the same area have suffered from poor drainage and mosquito-infested swamps at their back doors.

The Baker Creek Project involves close cooperation of several local and Federal agencies. The Soil Conservation Service will provide technical services for reconstruction of four main channels. RC&D funds will help pay the cost of flood control and agricultural water management.

The drainage board assumes local financial responsibility for project installation, operation, and maintenance. A long-term loan has been provided by the Farmers Home Administration to the drainage board, which will collect assessments from benefiting landowners. The Agricultural Stabilization and Conservation Service will cost-share with farmers establishing erosion-control practices.

Together, these water management and development measures will serve the water needs of the Lincoln Hills area and give a lift to its economy. ♦